REMARKS

The Applicant thanks the Examiner for indicating that claims 19-22 are allowable. In view thereof, these claims are amended as set forth above to provide merely clarifying editorial amendments and better define the claimed subject matter.

Claims 18 and 23 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for the reasons noted in the official action. Claim 18 is rewritten as new claim 27 and claim 23 is accordingly amended, by the above claim amendments, and the presently pending claims are now believed to particularly point out and distinctly claim the subject matter regarded as the invention, thereby overcoming all of the raised § 112, second paragraph, rejections. The entered claim amendments are directed solely at overcoming the raised indefiniteness rejection(s) and are not directed at distinguishing the present invention from the art of record in this case.

Claims 15-17, now claims 24-26 are rejected, under 35 U.S.C. § 103(a), as being unpatentable over the German reference Edelstahlwerke '610 in view of Fehr '408. The Applicant acknowledges and respectfully traverses the raised obviousness rejection in view of the following remarks.

As the Examiner is aware, in order to properly support a rejection under 35 U.S.C. § 103(a), the references must provide at least some disclosure, teaching or suggestion that would lead one of ordinary skill in the art to combine the references as asserted in the office action. It is the Applicant's position that the asynchronous magnetic coupling as disclosed by Fehr '408, and any related teachings therein, are uncombinable with the fundamentally different hysteresis-type electromagnetic rotary device disclosed and taught by Edelstahlwerke.

Importantly, Fehr '408 relates generally to an asynchronous synchronizable magnet coupling. As is well known in the art of electric motor manufacture, asynchronous devices and motors have a driving rotor 14 and a separate driven rotor 12 which are substantially concentric and radially spaced apart about the axis A. Each rotor 12 and 14 are provided with tooth-like poles to cover either a part, or all, of the separately rotating surfaces of the respective rotors 12

and 14. Fundamentally, both synchronous and asynchronous motors, as discussed for example, at column 1, lines 19-34 of Fehr et al. '408 are completely different than hysteresis-type motors of either Edelstahlwerke '610 or the present invention.

From the standpoint of electromagnetic fundamentals, the flux and force lines developed in an asynchronous and synchronous motor are particularly different than those of a hysteresis motor. This is of course most easily observable from a structural standpoint. Most notably in the fact that the opposing magnetized poles in asynchronous and synchronous motors are respectively on separated and radially spaced apart inner and outer rotors. On the contrary, as can be seen in Fig. 1 of the Edelstahlwerke '610 reference, the induced magnetic poles are axially adjacent and radially equally spaced from the center line of the shaft.

Notably, asynchronous devices have a transmission characteristic in which the torque is a function of slip, see Fehr '408, column 1 lines 31-33. As is well known in hysteresis units transmissible torque is substantially independent of the slip and dependent upon the current supplied to the exciting coil as discussed in the Applicant's specification at least at page 1, paragraphs 6-11. From a practical application standpoint, the fundamental differences in these motors allow for specifically different usages. For example, hysteresis-type motors usually provide substantially better and more flexible response to signal variations and load changes in many cases. However, in comparison to asynchronous motors, there is substantial slip loss in hysteresis-type motors, these losses generate significant heat, which, as is well known in the art, must be accordingly considered.

In view of the above, the Applicant believes that there are such substantial fundamental differences between the asynchronous and hysteresis-type rotary electromagnetic devices which are well known by those of ordinary skill in the art that further discussion relative to such differences is unnecessary. In any event, the Applicant has also made a thorough study of the Fehr et al. '408 reference and can find no disclosure either inherent or expressed with respect to the possible combination of such an asynchronous motor with a hysteresis motor. Nor does the Applicant find in the German patent Edelstahlwerke '610 any such motivation or suggestion

that such a device or fundamental concept could be combined with that of an asynchronous motor. Therefore, the Applicant believes that the combination of the two fundamentally different references is not only impossible, but would in essence produce an unworkable motor in view of the basic electromagnetic principles and fundamental structural differences.

Even if these references are combinable and the Applicant does not concede as such, the combination of these two references still fails to disclose or teach the specifically claimed invention. Most notably turning to new claim 24, which has been editorially rewritten to provide further clarity to the presently claimed invention but is substantially the same subject matter as previous claim 15, neither reference alone or in combination disclose, teach or suggest at least the specific feature that the pole fingers integral in the respective two axially adjacent parts 2, 3 of the magnetic body 6 are ".....tapered to their free end in axial direction relative to their radial and tangential expansion and being tapered to a point relative to their radial expansion". This feature, best shown in the Applicant's Figs. 1 and 3, shows that as the pole fingers extend axially, they narrow to a tip or end portion from a wider base portion both along the axial direction, as well as in the radial direction, that is, they axially and radially narrow to an edge. Thus, at the very least neither the Edelstahlwerke `610, nor Fehr `408 either alone or in combination disclose or teach such axial and radial narrowing.

Claims 24-27 essentially correspond to previous claims 15-18 and in view of the above remarks and the clarifying changes written into these claims, the Applicant believes these claims to be allowable. In addition, the Applicant has added new claims 28-30 which include the subject matter of previous claim 15 substantially rewritten to provide further clarification of the inventive subject matter and also including further structural distinctions not shown in the prior art. An important difference in the presently claimed invention is the construction of the magnet body, that surrounds the magnet coil and consists of two parts (2, 3) that are rigidly mounted together by means of screw (9) and the centering ring (8), which is important for the way the rotor shaft (12) is rotatably supported in the magnet body (6) by means of the ball bearings (10, 11).

In view of this the Applicant believes these new claims to be allowable as well. If any further amendment is believed necessary to this application in order to place it in condition for allowance, the Examiner is courteously requested to contact the undersigned representative to discuss the same.

In view of the above amendments and remarks, it is respectfully submitted that all of the raised obviousness rejection(s) should be withdrawn at this time. If the Examiner disagrees with the Applicant's view concerning the withdrawal of the outstanding rejection(s) or applicability of the Edelstahlwerke '610 or Fehr '408 references, the Applicant respectfully requests the Examiner to indicate the specific passage or passages, or the drawing or drawings, which contain the necessary teaching, suggestion and/or disclosure required by case law. As such teaching, suggestion and/or disclosure is not present in the applied references, the raised rejection should be withdrawn at this time. Alternatively, if the Examiner is relying on his/her expertise in this field, the Applicant respectfully requests the Examiner to enter an affidavit substantiating the Examiner's position so that suitable contradictory evidence can be entered in this case by the Applicant.

In view of the foregoing, it is respectfully submitted that the raised obviousness rejections should be withdrawn and this application is now placed in a condition for allowance. Action to that end, in the form of an early Notice of Allowance, is courteously solicited by the Applicant at this time.

The Applicant respectfully requests that any outstanding objection(s) or requirement(s), as to the form of this application, be held in abeyance until allowable subject matter is indicated for this case.

09/856,728

In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

19. (~~NEW~~**AMENDED**) ~~The~~**A** hysteresis unit (1, 23) ~~with~~**comprising a** magnetic north pole (4) around an axis of rotation (14), **alternating** at a distance in **a** peripheral direction (15) from **a** south pole (5)~~, alternating with the pole, is~~ situated in a magnet body (2, 3) ~~which comprises~~**having** a magnet coil (6), a movable hysteresis ring (16) having a slight play relative to said poles (4, 5) is connected with ~~the~~**a** rotor (17), ~~wherein the~~**and** peripheral surfaces of the north pole (4) and south pole (5) lie on the same circle and opposite to ~~the same~~**an adjacent** peripheral surface of said hysteresis ring (16), ~~the hysteresis~~**the moveable hysteresis** ring (16) surrounds said north pole (4) and said south pole (5), said poles being formed by pole fingers (4, 5) which, departing from axial front walls of said magnet body (2, 3) are aligned upon each other and ~~have~~**are spaced** from each other a greater distance than from said hysteresis ring (16) and said hysteresis ring (16) abuts by a peripheral surface on said rotor (17), **and** wherein said pole fingers (4, 5) are interconnected by a non-magnetizable material.

20. (~~NEW~~**AMENDED**) The hysteresis unit (1, 23) according to claim 19, wherein said **non-magnetizable** material~~;~~ **is** preferably brass, **which** has good heat conductivity.

21. (~~NEW~~**AMENDED**) The hysteresis unit (1, 23) according to claim 19, wherein said pole fingers (4, 5) are **supported by and** shrunk upon a connecting ring (27).

22. (~~NEW~~**AMENDED**) The hysteresis unit (1) according to claim 19, wherein ~~the~~ intermediate spaces between said pole fingers (4, 5) are filled with a non-magnetizable filling component (28).

23. (~~NEW~~**AMENDED**) The hysteresis unit (1, 23) according to claim 19, wherein it is designed as **a** clutch by an outer part (25) with said pole finger (5) of said magnet body (2) being separated from the latter by a thin annular gap (26) and said second magnet ~~body rotatable~~**body (3) sitting with a small gap (29) rotatably relative to said magnet body (2) upon a rotatable** part to be coupled while the first magnet body (2) is mounted fastened on ~~the~~**a** housing.